The Department of Health and Human Services in the United States pointed out that under a law of 1973 it is illegal to refuse lifesaving treatment, medical or surgical, to a patient simply because he had another abnormality. This was not a diktat. It was reminding doctors in hospital what had been the law for the past 10 years, and our own Court of Appeal has ruled that even though a newborn infant has Down's syndrome, which may cause mild, moderate, or in some cases severe mental retardation, this is no excuse for depriving him of available treatment of a life threatening condition.

Of course, there are times when life support in the sense of intravenous fluids and intubation may be necessary in a newborn infant as part of the overall plan of improving his health or even curing him. The fact that a tiny premature baby would have had no chance of survival a few years ago is important, and this advanced neonatal care should be available to all infants who are not actually dying from a disease which cannot be treated. To do otherwise would be an act of discrimination against the handicapped, and I am sure that Dr Koop would agree with Dr Joseph A Kitterman, a specialist in neonatal intensive care, that "the only situation in which we even consider removing a life support system is when the baby has an incurable condition and is not really viable, and death is inevitable."

The reminder from the United States Department of Health and Human Services of what had been the law of the country since 1973 applied to those life threatening conditions which were treatable in babies who might have another congenital abnormality. This is a perfectly reasonable view and one which I hope is widely accepted in this country. Certainly, in contrast to Dr Michael O'Donnell I know that many American doctors are delighted that this reminder has been issued.

There are laws against discrimination in this country so that a person may not be unjustly discriminated against when seeking a house or a job. The discrimination against handicapped newborn infants is far more serious, for without the help to which they are entitled they die.

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Mineral content of the forearms of babies born to Asian and white mothers

SIR,—Dr P Congdon and others (16 April, p 1233) have drawn conclusions which are not justified by their data. Their principal suggestion "that mineralisation of the fetal skeleton is not impaired in maternal vitamin D deficiency" can neither be supported nor refuted by the information presented. Since maternal concentrations of vitamin D metabolites were not measured the authors cannot prove that the Asian mothers who were not given vitamin D supplements were deficient. Many pregnant Asian women in Great Britain are indeed deficient in vitamin D, but this cannot be said of all of them. In a recent study[1] only Pakistani, Indian Hindu, and east African Hindu women had evidence of such deficiency, and non-vegetarians were unlikely to be deficient. Unfortunately, Dr Congdon and others gave no information on the diet or ethnic background of the Asian subjects.

The authors also found that seven of the 64 Asian babies had craniotabes, and their bone mineral content as assessed by photon absorptiometry was not significantly different from that of the others. They concluded that craniotabes should therefore not be taken as an indication of a generalised deficit in bone mineralisation. Perhaps it is equally valid to doubt the adequacy of photon absorptiometry of the right forearm as an indicator of the whole body state of bone mineralisation.

As Dr Congdon and others state, vitamin D deficiency has long term effects on growth and dentition in infancy and childhood. Perhaps it is only after long term follow up of such infants that we can be sure that bone mineralisation is not impaired by vitamin D deficiency in their mothers.

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**We sent a copy of this letter to the authors, who reply below.—ED, *BMJ*.

SIR,—Although we did not measure maternal concentrations of vitamin D metabolites, our use of cord blood in no way invalidates our main conclusion that "mineralisation of the fetal skeleton is not impaired in maternal vitamin D deficiency." Heckmatt *et al*[1] and Hillman and Haddad[2] have shown a strong correlation between 25-hydroxy vitamin D concentrations in umbilical cord blood and in maternal blood, Hillman and Haddad's[2] conclusion being that "low cord levels for 25-hydroxy vitamin D are the result of low maternal serum levels." In a previous study from Leeds[1] 81% of mothers had plasma 25-hydroxy vitamin D concentrations in the osteomalacic range, and our finding that 91% of our mothers not receiving supplements had cord blood concentrations less than 10 nmol/l (4 ng/ml) implies that maternal vitamin D deficiency was particularly common. The study[3] cited by Dr Walters investigated pregnant Asian women "of good social standing and not considered at risk of nutritional deficiency," a very different population from the one we studied.

Craniotabes, which is found in both normal babies[4] and those with neonatal rickets,[5 6] is commonly thought to be a good indication of impaired skeletal mineralisation. Despite Dr Walters's doubts about the use of photon absorptiometry, the precision and accuracy of this technique has been confirmed in studies using cadaver forearms.[7] Moreover, in adults there is a significant correlation between measurements of the bone mineral content of the forearm and total body calcium.[8]

As the bone mineral content of the right radius in babies with craniotabes was not significantly different from that in those without this sign, our conclusion that craniotabes is not a reliable indication of impaired skeletal mineralisation is consistent with our data. Pettifor *et al*[9] have also found craniotabes in infants with evidence on the radiograph of rickets and with normal 25-hydroxy vitamin D concentrations.

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Human in vitro fertilisation and embryo replacement and transfer

SIR,—Our colleagues of the Medical Research Council and the Royal College of Obstetricians and Gynaecologists are specialists; but our association represents the majority of all doctors. Hence the intense disquiet that I am convinced will be felt far beyond the Guild of Catholic Doctors at the decision—the more so in one sense in face of its obviously laudable aim to help the infertile to the maximum degree possible—of the BMA working group on in vitro fertilisation (14 May, p 1594) in paragraphs 10 and 11 of its interim report—that is, to sanction the observation and storage of embryos in such a way as will lead, for some of them and with "the donors' wishes . . . as far as possible . . . respected" (words yet more ominous), to their becoming "spare" and so to their "ultimate disposal"—meaning destruction.

This decision can be based on one of only two ethical principles: either that it is permissible to destroy innocent human life or—far more likely—that the newly formed embryo is not human or is subhuman. No doubt, under challenge, the same casuistry will come out—often made more raucous by reason of uncertainty, even unacknowledged guilt—that the embryo becomes human only at some later, artefactual point: at implantation (although it is possible now to rear the embryo in vitro), at quickening, even at childbirth. Any microgeneticist will tell you that, whether or not one or more individuals result, the genetic coding is laid down on fertilisation and discernible as human on the first mitosis.

Does the working party not realise what whirlwind may be reaped from even that small wind sown? Can we not read the omens of recent history? The formal dehumanisation of the Jews for the purpose of the Nazi holocaust as "non-herrenfolk?" The dehumanisation for "psychiatric treatment" or alternative liquidation on a huge scale by Stalin of any political opponent, and on a smaller scale by his successors today? Are our own present omens not enough? The dehumanisation of the fetus about to be aborted from the womb of the unwanting mother; the malformed or handicapped infant; the old, whether demented or claiming the desire to die; some prisoners brutalised by the police; all victims of our age of increasingly ruthless violence.

As the ladies of Greenham Common realise only too clearly, their stand symbolises

only the essential moral argument: that it takes only the very next dehumanisation, in someone's mind and heart, of the ordinary men, women, and children of Moscow, Leningrad, New York, Chicago—perhaps London?—for him (even perhaps her) to be willing to press the button that will set off the cosmocidal nuclear holocaust.

The catchphrase "potential human being," lacking full human rights, may be trotted out in defence: a yet more slippery slope to defend the destruction of the defenceless, when it is recognised that we are all becoming potentially less human, intellectually, from our 30s onwards and, presbyopically, from our 50s, to take but two examples. Are all the geriatrics "less potential human beings" as against "human beings losing potential?" My guild repudiates even this materialistic standpoint. For us the embryo is a human being of maximal potential; but until our final free choice when purged in the moment of death, we continue, all of us spiritually speaking, to be imperfectly developed and therefore potential.

The Guild of Catholic Doctors seems to be the only organised body of doctors to take this standpoint of defence of humanity from conception onwards. If there are other organisations on our side, will they please get in touch with me? In case there are none, will all like minded individual doctors implore the BMA ethical committee, and, through it, council, for humanity's sake if not God's, to refuse to endorse paragraphs 10 and 11 of the working party's report?

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Weighing babies in clinics

SIR,—Professor D P Davies and Dr T Williams make many excellent points in their article (12 March, p 860). They note that individual, multipurpose clinic cards have long been used in some developing countries and should be adopted in Britain. They do not, however, consider for whom the weighing is being done.

It is usually assumed that doctors will see and interpret the growth curve. In developing countries few children in the rural or slum areas see a doctor, and we consider that charts used there are more useful if designed for less qualified health workers and even for the parents to understand. For them, the concept of centile lines will be difficult and these lines are unnecessary. This fits with the suggestion of Professor Davies and Dr Williams that a healthy "pattern of weight gain" is more important than detailed quantitative analysis. We consider that two simple growth lines appropriate to the cultural context form a satisfactory guide or "path to health."

One of us (DCM) has suggested that growth charts can be considered as either "curative" or "preventive,"[1] and charting growth can contribute to both these components. It is the "preventive" aspect that has been emphasised in Third World countries. This "preventive" or "road to health" card is home based—that is, it is kept by parents. This has many advantages, particularly when health workers visit the home, since it carries information on the immunisation state, reasons for special care, and details of major illnesses suffered by the child. This simple growth chart belongs to the family and is fully described elsewhere.[2]

Currently the tropical child health unit in the Institute of Child Health has some 280 different growth charts of this type from countries around the world. The variation in design of these is currently being analysed, and a report on them will be available from Teaching Aids at Low Cost, PO Box 49, St Albans, Herts AL1 4AX. Without good training these useful health instruments are often underused and can be misinterpreted. The article by Professor Davies and Dr Williams is a timely reminder that even an apparently simple procedure requires care in execution and thoughtful interpretation. Measuring sequential weight is important, but it is not simple. If useful decisions and important instructions are to be based on such charts, both good equipment and sound training are essential.

With the return to more mothers breast feeding their babies for at least the first few months of life, leaving these charts with the mother can be important reassurance to her that her child is growing satisfactorily. This confidence is fundamental to satisfactory breast feeding, and for perhaps 90% of mothers this is all that is required. Where a baby is small for dates or shows some abnormality of growth, however, the centile charts are valuable, and, as Dr Barbara Johnson suggests (2 April, p 145), the length of these children should also be measured.

Weighing babies can become a blind or even careless ritual and a prelude to dogmatic and threatening pronouncements about feeding. But weighing babies in a clinic can be much more. It is an objective, repeatable, visually recordable measurement of a child's growth and state of health. It is the opportunity for a trained health worker periodically to inspect the unclothed child to see that all is well and check that the appearance corresponds to the weight graph. It is also the chance for a parent to voice any anxiety and the clinic staff to advise, reassure, and compliment. Weighing the child is an understandable and culturally acceptable activity, and the growth chart can also be a record of the other components of a good child care service.[3]

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A hazardous commodity

SIR,—As a participant in the November 1981 symposium (financed by the Scotch Whisky Association) on economics and alcohol, to which Ms Patricia Norton (16 April, p 1273) refers,[1] I can confirm that it afforded the opportunity "to explore the contribution economists can make towards the use and misuse of alcohol, until recently regarded as the preserve of doctors and sociologists." But, lest exploring laymen should increasingly lack continence, should not public policy aim to prevent them becoming more familiar with alcohol misuse? Preventive measures such as maintaining the real price of alcohol, as recommended by the expenditure committee in their report on preventive medicine[2] but disregarded by successive chancellors, are not based on reasoning that is "too simple." Extending life and hence future use of health services, reducing employment related to alcohol, and curtailing expenditure on advertising are not valid economic arguments against such measures. The extension of lives free from alcoholism is a benefit not a cost; those employed through alcohol use (and misuse) could produce goods and services to meet other demands, and advertising of alcohol could be replaced by health education if society wanted these alternatives. Although many aspects of alcohol misuse remain unresearched, evidence such as increasing admissions to psychiatric hospitals of teenage alcoholics[3] suggests that present policies are only bottling up the problem.

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Smoking, lung function, and body weight

SIR,—Dr B Nemery and others (22 January, p 249) and Dr Francine Kauffmann (16 April, p 1280) are concerned to understand why they find men who smoke tend to be of relatively lower weight than non-smokers. They focus attention on the lung, apparently because of their interest in respiratory function and the lung is the organ most obviously assailed by tobacco smoke. Dr Kauffmann agrees with Dr Nemery and others that two hypotheses remain: "Weight loss in smokers may be the consequence of impaired lung function, or among susceptible smokers cigarette smoking acts both on the respiratory tract and metabolism."

The tendency of cigarette smokers to relatively low weight is universal, at least among adult men. In every one of the 16 cohorts in the seven countries study—north Europeans, south Europeans, Americans, and Japanese alike—smokers had a substantially lower body mass index than non-smokers.[1] In another study on 517 "healthy" men aged 35-60 in Finland the correlation between body mass index and number of cigarettes smoked daily was −0·15 and between fatness (sum of skinfolds) and smoking the correlation coefficient was −0·13. It is also true that the forced expiratory volume per unit height and given age is inversely related to the number of cigarettes smoked daily. For example, we found correlation coefficients of −0·15 for 1475 men in Finland and −0·23 for 1056 men in the railroad industry in the United States.

But it seems odd to discuss the relation between smoking habit and relative body weight without consideration of appetite and eating satisfaction. Long ago we wrote: "Surprisingly enough, the phenomenon of weight change following a break in a lifelong pattern of smoking . . . has not been studied systematically."[2] So, in a long time study on "healthy" middle aged business men we compared men of more or less normal relative weight who voluntarily stopped smoking with their business colleagues, matched in age and relative weight, who continued to smoke. After two years the men who had stopped smoking had gained 3·7 kg while their fellows who continued to smoke had lost an average of 0·5 kg.[2]

While details of the mechanisms concerned in this relation between smoking and relative weight and fatness remain unclear, the fact